

ABSTRACT OF THE DISCLOSURE

An aircraft operation data transmission and retrieval system. The system includes one or more black boxes, such as a flight data recorder or a cockpit voice recorder, that stores aircraft operational data received from sensors on the aircraft. A flight data acquisition unit that is connected to sensors around the aircraft may provide the aircraft operational data. The black boxes store data during a flight that, in the event of an accident, can assist investigators in determining the cause of the accident. If the aircraft systems or the pilots believe that an accident is about to occur, a triggering device is activated to cause the black boxes to output their data to a formatting device. This can occur when an abnormal operating condition is sensed by one or more of the sensors. The data is then formatted and sent to a transmitter for wireless transmission. Formatting can include data compression and the insertion of error correction codes. Either a ground based receiver or a satellite receiver receives the data, thereby allowing for the efficient and effective retrieval of aircraft operational data.

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